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## Modeling core inflation: considering goods and services separately

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Keeping inflation low has been a key concern of the Federal Reserve System (the Fed) for most of its 100-year history. In pursuit of this policy, the Fed focuses on *core inflation*, inflation that excludes volatile components, often (though not exclusively) seen as food and energy prices. However, models that economists have developed to forecast core inflation have not fared well in general. One possible reason is that most such models use aggregate core inflation to predict total inflation rather than looking separately at inflationary expectations for core services and core goods.

In a departure from this aggregate-level approach, Richard Peach, Robert Rich, and M. Henry Linder investigate whether breaking down aggregate core inflation into goods inflation and services inflation will yield more accurate predictions. In their article “[The parts are more than the whole: separating goods and services to predict core inflation](#)” (Federal Reserve Bank of New York, *Current Issues in Economics and Finance*, August 2013), the authors model goods inflation and services inflation separately and conclude that doing so results in a substantial improvement in predictability of core inflation over aggregate-level approaches.

But there is more. Not only do separate models of goods inflation and services inflation yield more accurate predictions, but they reveal that these two distinct kinds of inflation have different behaviors and that they are influenced by different forces. Specifically, core goods inflation depends on expectations of short-run inflation and on import prices, whereas core services inflation depends on expectations of long-run inflation and on tightness or slack in the domestic labor market.

The authors show that, when these two distinct pairs of forces are taken into account, the resulting composite model both tracks total inflation and projects total inflation more accurately than do models based on aggregate core inflation—and they do so not only within the sample period selected but outside of that period as well.